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|-----------------|-------------|----------------------|---------------------|------------------|
| 10/076,524      | 02/19/2002  | Hiroaki Ito          | P67646US0           | 1675             |

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EXAMINER

BOCHNA, DAVID

ART UNIT PAPER NUMBER

3679

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/076,524

Applicant(s)

ITO ET AL.

Examiner

David E. Bochna

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al.

In regard to claims 1, 2, 8, 9 and 10-16 Muto et al. discloses a tank joint part 32 welded to a resinous outer surface 31a of a fuel tank for joining another device thereto wherein the tank joint part 32 is composed of polyamide (PA), Polybutylene terephthalate (PBT), polyacetal (POM), polyethylene terephthalate (PET), or polyphenylene sulfide (PPS) and where the outer surface of the tank is made from HDPE. However, Muto et al. does not specifically disclose the bonding strength or the difference in volume swelling between materials of the tank joint part and the outer surface of the tank is 10% or less when they swell with fuel, as measured under the specific conditions recited in claims 1, 2, 9 and 10.

However, the Applicants' specification discloses that the fuel tank of the present invention has an outer layer made of HDPE and that the tank joint part is preferably made out of PPS, POM, PA or EVOH, and that the combination of these two materials will have a bonding strength of 2 MPa and that the fuel permeability of these two materials will not allow the tank joint or fuel tank to swell more than 10% when exposed to fuel under the specific conditions recited in claims 1, 2, 9 and 10.

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Therefore, the connection of the tank joint part 32 and the fuel tank 31 a of Muto et al. would have a similar bonding strength and would not swell more than 10% under the specific conditions recited by the Applicant because both the Applicant and Muto et al. are disclosing that their tank joints are made from the same materials, and because they are both made from the same materials they would inherently act the same under the same claimed specific conditions.

In regard to claim 3, the main 32 and joining members 32A, 33 form a unitary product of injection molding. Muto et al. does not disclose that the main and joining members are made out of two different colors. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to change the color of one of the members because a color change is seen as an ornamental and a change in ornamental design having no mechanical function is an aesthetic design consideration within the skill of the art. In re Seid, 161 F.2d 229, 73 USPQ 431 (CCPA 1947).

In regard to claim 4, the main and joining members are complementarily engaged with each other in cross section (see fig. 2).

In regard to claim 5, the joining member 32 is of the multilayer structure comprising at least two joining submembers 32A, 33 lying between the tank 31 and the main member 32.

In regard to claim 6, the main member 32 and the joining submembers 32A form a unitary product of injection molding.

In regard to claim 7, the main member and the joining submembers are complementarily engaged with each other in cross section (see fig. 2).

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In regard to claims 8, 9 and 10, the material of the tank joint part has a fuel permeability of 2.5 mgmm/cm<sup>2</sup>/day or less as measured under specific conditions (tank is made from HDPE and the fuel cut valve 32 is made from polyamide (see col. 3, lines 12-13)).

In regard to claim 17, the tank joint part is a fuel filler valve 32.

In regard to claim 18, the tank joint part 32 is a pipe for connecting a hose to the tank 31.

In regard to claim 19, the tank is a single-layered resinous tank 31.

In regard to claim 20, the tank 31 is an automobile fuel tank.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

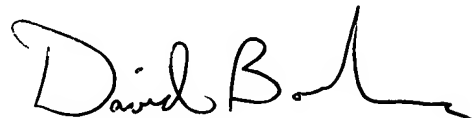
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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Bochna whose telephone number is (703) 306-9040. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

A handwritten signature in black ink, appearing to read "David Bochna", with a stylized flourish at the end.

**David Bochna**  
**Primary Examiner**  
**Art Unit 3679**  
**December 24, 2003**